

WHAT IS CLAIMED IS:

1. A method for determining, in a base station controller (BSC), information for controlling transmission power of a mobile station, said information depending on a signal received from a base station transceiver system (BTS), in a mobile communication system, said mobile communication system including said mobile station for transmitting and receiving data in a predetermined period, said base station transceiver system and said base station controller for controlling said base station transceiver system, the method comprising the steps of:

receiving, in the base station controller, a reverse message from the base station transceiver system; and
determining a type of a frame included in the received reverse message.

2. The method as claimed in claim 1, further comprising the step of:
setting previous power control information to present power control information if the frame type of the reverse message is a null frame indicating there is no data to transmit;

wherein power control information is for controlling transmission power of the mobile station, and said previous power control information was used prior to receipt of said null frame.

3. The method as claimed in claim 1, further comprising the step of:
setting present power control information to increase transmission power of the mobile station, if the frame type of the reverse message is an erasure frame.

4. The method as claimed in claim 1, further comprising the step of:

setting power control information initially defined during resource assignment to present power control information, if the frame type of the reverse message is an idle frame.

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5. A method for determining, in a base station transceiver system (BTS), information for controlling mobile station transmission power depending on a signal received from a base station controller (BSC), in a mobile communication system, said mobile communication system including said mobile station for transmitting and receiving data in a predetermined period, said base station transceiver system and said base station controller for controlling said base station transceiver system, the method comprising the steps of:

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receiving, in the base station transceiver system, a forward message from the base station controller; and

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analyzing a type of a frame included in the received forward message.

6. The method as claimed in claim 5, further comprising the step of:

setting previous power control information used for power control of the mobile station prior to receipt of a null frame as present power control information for controlling transmission power of the mobile station, if the frame type of the forward message is a null frame indicating that there is no data to transmit.

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7. The method as claimed in claim 5, further comprising the step of:

setting power control information included in the forward message as the present power control information, if the frame type of the forward message is an idle frame

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8. The method as claimed in claim 5, further comprising the step of:
 setting present power control information to increase transmission power of the mobile station, if the type of frame of the forward message is an erasure frame.

5 9. A method for determining, in a base station controller (BSC),
 information for controlling transmission power of a mobile station, said information
 depending on a signal received from a base station transceiver system (BTS), in a mobile
 communication system, said mobile communication system including said mobile station
 for transmitting and receiving data in a predetermined period, said base station
 10 transceiver system and said base station controller for controlling said base station
 transceiver system, the method comprising the steps of:

receiving, in the base station controller, a reverse message from the base station
 transceiver system;

determining a type of a frame included in the received reverse message; and
 15 determining present power control information to control power of the mobile station
 depending on said type of data.

10. A method for transmitting a signal from a base station transceiver
 system (BTS) to a base station controller (BSC) when there is no data transmitted
 20 from a mobile station while in discontinuous transmission (DTX) mode, in a mobile
 communication system, the method comprising the steps of:

detecting the discontinuous transmission (DTX) mode if there is no reverse
 traffic;

setting a reverse traffic channel quality field to zero; and

transmitting the information of the reverse link quality field to the base station controller.

11. A method for transmitting a signal from a base station transceiver system (BTS) to a base station controller (BSC) when there is no data transmitted from a mobile station while in discontinuous transmission (DTX) mode in a mobile communication system, the method comprising the steps of:

detecting the discontinuous transmission (DTX) mode if there is no reverse traffic;

setting a previous power control information at the time point where the DTX mode is detected, to a present power control information at the time point where the DTX mode is detected, to a present power control information if a DCCH forward message last received from the base station controller is not a null frame; and

transmitting the present power control information to base station controller.

12. A method for determining, in a base station controller (BSC), information for controlling transmission power of a mobile station, said information depending on a signal received from a base station transceiver system (BTS), in a mobile communication system, the method comprising the steps of:

receiving, in the base station controller, a reverse message including a reverse traffic channel quality field from the base station transceiver system;

determining whether the information of the reverse traffic channel quality field in the reverse message is zero; and

setting previous power control information to present power control information if the information of the reverse traffic channel quality field is zero.